

**Remarks/Arguments**

Claims 2-3 and 5-35 are currently in the application. Claims 2, 7, 8, 15, 16, 23, 24, 31 and 32 have been amended. Support for the amendment to the claims is in the specification and claims as filed, and also as indicated below.

**The amendments to comply with 35 USC § 112, second paragraph**

Claims 7, 8, 15, 16, 23, 24, 31 and 32 have been amended as shown to comply with 35 USC 112. It is respectfully submitted the claims are now acceptable under 35 USC § 112.

**The amendment to overcome the rejection under 35 USC § 102(b)**

As proposed on September 14, 2006, claim 2 has been amended to overcome the rejection as anticipated by Erskine (US Pat. No. 6,351,307).

As discussed in the previous Response dated May 25, 2006, the claims are directed to a dispersing Fourier Transform interferometer comprising a Fourier Transform Spectrometer, a dispersive element, and a metrology system. The metrology system is now clarified in the claim language as measuring optical path lengths internal to the interferometer.

Applicants reiterate that Erskine does not disclose an interferometer with a metrology system. The Office Action cites Erskine at col. 11, lines 37-38 (31) for this element, but what Erskine teaches is merely a PZT device capable of moving the interferometer mirrors a small distance on the order of a few micrometers, jiggling the optical path difference by just a few wavelengths. In other words, Erskine's is a displacement means, not a measuring or metrology system unlike the present invention. Therefore unlike the present invention Erskine is not capable of measuring ultra-precise spectra. The metrology system of the invention is "full aperture", in that it traverses or travels the same beam path (from beam splitting to beam recombination, again unlike Erskine) as the science light source, and directly measures a path difference (see

specification, p. 10, line 14-p. 11, line 23). As a result, vibrations, optical defects, and other sources of error introduced into the science light source are also detected and corrected by the metrology system. Erskine does not have this capability since it does not provide a metrology element in its system.

A rejection on the grounds of anticipation is proper only when every limitation recited in a claim is disclosed in the single reference. Since the cited reference does not fulfill this requirement, Applicant respectfully requests that the rejection on this ground now be withdrawn.

The base claims and the dependent claims are allowable for the reasons set forth above and the reasons set forth in the previous Response dated May 25, 2006, and the dependent claims also for the additional limitations recited therein.

Applicants respectfully submit that the claims presently submitted are allowable for the reasons stated above and request that a timely Notice of Allowance be issued in the case. The Examiner is invited to contact Applicants' attorney at the number indicated below should further discussion help advance the case to issuance.

Kindly charge any additional fee, or credit overpayments, to Deposit Account No. 50-0281.

Respectfully submitted,



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